



## SEQUENCE LISTING

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TECH CENTER 1600/2900

&lt;110&gt; Michael E. Mendelsohn

<120> METHOD FOR ASSAYING COMPOUNDS AFFECTING  
CELL DIVISION

&lt;130&gt; 00398/506001

&lt;140&gt; 09/352,570

&lt;141&gt; 1999-07-13

&lt;160&gt; 7

&lt;170&gt; FastSEQ for Windows Version 4.0

&lt;210&gt; 1

&lt;211&gt; 618

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; (1)...(618)

&lt;400&gt; 1

atg gcg ctg cag ctc tcc cgg gag cag gga atc acc ctg cgc ggg agc 48  
Met Ala Leu Gln Leu Ser Arg Glu Gln Gly Ile Thr Leu Arg Gly Ser  
1 5 10 15

gcc gaa atc gtg gcc gag ttc ttc tca ttc ggc atc aac agc att tta 96  
Ala Glu Ile Val Ala Glu Phe Phe Ser Phe Gly Ile Asn Ser Ile Leu  
20 25 30

tat cag cgt ggc ata tat cca tct gaa acc ttt act cga gtg cag aaa 144  
Tyr Gln Arg Gly Ile Tyr Pro Ser Glu Thr Phe Thr Arg Val Gln Lys  
35 40 45

tac gga ctc acc ttg ctt gta act act gat ctt gag ctc ata aaa tac 192  
Tyr Gly Leu Thr Leu Leu Val Thr Thr Asp Leu Glu Leu Ile Lys Tyr  
50 55 60

cta aat aat gtg gtg gaa caa ctg aaa gat tgg tta tac aag tgt tca 240  
Leu Asn Asn Val Val Glu Gln Leu Lys Asp Trp Leu Tyr Lys Cys Ser  
65 70 75 80

gtt cag aaa ctg gtt gta gtt atc tca aat att gaa agt ggt gag gtc 288  
Val Gln Lys Leu Val Val Val Ile Ser Asn Ile Glu Ser Gly Glu Val  
85 90 95

ctg gaa aga tgg cag ttt gat att gag tgt gac aag act gca aaa gat 336  
Leu Glu Arg Trp Gln Phe Asp Ile Glu Cys Asp Lys Thr Ala Lys Asp  
100 105 110

gac agt gca ccc aga gaa aag tct cag aaa gct atc cag gat gaa atc 384  
Asp Ser Ala Pro Arg Glu Lys Ser Gln Lys Ala Ile Gln Asp Glu Ile

115	120	125	
cgt tca gtg atc aga cag atc aca gct acg gtg aca ttt ctg cca ctg			432
Arg Ser Val Ile Arg Gln Ile Thr Ala Thr Val Thr Phe Leu Pro Leu			
130	135	140	
ttg gaa gtt tct tgt tca ttt gat ctg ctg att tat aca gac aaa gat			480
Leu Glu Val Ser Cys Ser Phe Asp Leu Leu Ile Tyr Thr Asp Lys Asp			
145	150	155	160
ttg gtt gta cct gaa aaa tgg gaa gag tcg gga cca cag ttt att acc			528
Leu Val Val Pro Glu Lys Trp Glu Glu Ser Gly Pro Gln Phe Ile Thr			
	165	170	175
aat tct gag gaa gtg cgc ctt cgt tca ttt act act aca atc cac aaa			576
Asn Ser Glu Glu Val Arg Leu Arg Ser Phe Thr Thr Thr Ile His Lys			
	180	185	190
gta aat agc atg gtg gcc tac aaa att cct gtc aat gac tga			618
Val Asn Ser Met Val Ala Tyr Lys Ile Pro Val Asn Asp *			
195	200	205	

<210> 2  
 <211> 199  
 <212> PRT  
 <213> Homo sapiens

C1

<400> 2	
Arg Glu Gln Gly Ile Thr Leu Arg Gly Ser Ala Glu Ile Val Ala Glu	
1	5
Phe Phe Ser Phe Gly Ile Asn Ser Ile Leu Tyr Gln Arg Gly Ile Tyr	
	20
Pro Ser Glu Thr Phe Thr Arg Val Gln Lys Tyr Gly Leu Thr Leu Leu	
	35
Val Thr Thr Asp Leu Glu Leu Ile Lys Tyr Leu Asn Asn Val Val Glu	
	50
Gln Leu Lys Asp Trp Leu Tyr Lys Cys Ser Val Gln Lys Leu Val Val	
65	70
Val Ile Ser Asn Ile Glu Ser Gly Glu Val Leu Glu Arg Trp Gln Phe	
	85
Asp Ile Glu Cys Asp Lys Thr Ala Lys Asp Asp Ser Ala Pro Arg Glu	
	100
Lys Ser Gln Lys Ala Ile Gln Asp Glu Ile Arg Ser Val Ile Arg Gln	
	115
Ile Thr Ala Thr Val Thr Phe Leu Pro Leu Leu Glu Val Ser Cys Ser	
	130
Phe Asp Leu Leu Ile Tyr Thr Asp Lys Asp Leu Val Val Pro Glu Lys	
145	150
Trp Glu Glu Ser Gly Pro Gln Phe Ile Thr Asn Ser Glu Glu Val Arg	
	165
Leu Arg Ser Phe Thr Thr Thr Ile His Lys Val Asn Ser Met Val Ala	
	180
Tyr Lys Ile Pro Val Asn Asp	
195	

<210> 3  
 <211> 600  
 <212> DNA  
 <213> Ovis aries

<220>  
 <221> CDS  
 <222> (1)...(600)

<400> 3  
 cgg gag caa ggc atc acc ttg cgc ggg agc gcc gag atc gtg gcc gag 48  
 Arg Glu Gln Gly Ile Thr Leu Arg Gly Ser Ala Glu Ile Val Ala Glu  
 1 5 10 15

ttc ttc tca ttt ggt atc aac agt att tta tat cag cgt ggc ata tat 96  
 Phe Phe Ser Phe Gly Ile Asn Ser Ile Leu Tyr Gln Arg Gly Ile Tyr  
 20 25 30

cca tcg gaa acc ttt act cga gtg cag aaa tat gga ctc acc ttg ctt 144  
 Pro Ser Glu Thr Phe Thr Arg Val Gln Lys Tyr Gly Leu Thr Leu Leu  
 35 40 45

gta act act gat cct gag ctc ata aaa tac cta aat aat gtg gtg gat 192  
 Val Thr Thr Asp Pro Glu Leu Ile Lys Tyr Leu Asn Asn Val Val Asp  
 50 55 60

caa cta aaa gaa tgg tta tac aag tgt tca gtt cag aaa ctg gtg gta 240  
 Gln Leu Lys Glu Trp Leu Tyr Lys Cys Ser Val Gln Lys Leu Val Val  
 65 70 75 80

C1 gtc atc tca aat att gaa agt gga gag gtc ctt gaa aga tgg cag ttt 288  
 Val Ile Ser Asn Ile Glu Ser Gly Glu Val Leu Glu Arg Trp Gln Phe  
 85 90 95

gat att gag tgt gac aag act gca aaa gat gac agt gca ccc aga gaa 336  
 Asp Ile Glu Cys Asp Lys Thr Ala Lys Asp Asp Ser Ala Pro Arg Glu  
 100 105 110

aag tct cag aaa gct atc caa gat gaa atc cgt tca gtg atc aga cag 384  
 Lys Ser Gln Lys Ala Ile Gln Asp Glu Ile Arg Ser Val Ile Arg Gln  
 115 120 125

atc aca gct aca gta aca ttt ctg cca ctg ttg gaa gtt tct tgt tca 432  
 Ile Thr Ala Thr Val Thr Phe Leu Pro Leu Leu Glu Val Ser Cys Ser  
 130 135 140

ttt gat ctc ctc att tat aca gac aaa gat ctg gtt gta cct gag aaa 480  
 Phe Asp Leu Leu Ile Tyr Thr Asp Lys Asp Leu Val Val Pro Glu Lys  
 145 150 155 160

tgg gaa gag tcc gga cca cag ttc att acc aat tct gaa gaa gtt cgt 528  
 Trp Glu Glu Ser Gly Pro Gln Phe Ile Thr Asn Ser Glu Glu Val Arg  
 165 170 175

ctt cgt tca ttc act act aca att cac aaa gta aat agc atg gta gcc 576  
 Leu Arg Ser Phe Thr Thr Thr Ile His Lys Val Asn Ser Met Val Ala  
 180 185 190

tac aaa att cct gtc cat gac tga  
 Tyr Lys Ile Pro Val His Asp \*  
 195

600

<210> 4  
 <211> 199  
 <212> PRT  
 <213> Ovis aries

<400> 4  
 Arg Glu Gln Gly Ile Thr Leu Arg Gly Ser Ala Glu Ile Val Ala Glu  
 1 5 10 15  
 Phe Phe Ser Phe Gly Ile Asn Ser Ile Leu Tyr Gln Arg Gly Ile Tyr  
 20 25 30  
 Pro Ser Glu Thr Phe Thr Arg Val Gln Lys Tyr Gly Leu Thr Leu Leu  
 35 40 45  
 Val Thr Thr Asp Pro Glu Leu Ile Lys Tyr Leu Asn Asn Val Val Asp  
 50 55 60  
 Gln Leu Lys Glu Trp Leu Tyr Lys Cys Ser Val Gln Lys Leu Val Val  
 65 70 75 80  
 Val Ile Ser Asn Ile Glu Ser Gly Glu Val Leu Glu Arg Trp Gln Phe  
 85 90 95  
 Asp Ile Glu Cys Asp Lys Thr Ala Lys Asp Asp Ser Ala Pro Arg Glu  
 100 105 110  
 Lys Ser Gln Lys Ala Ile Gln Asp Glu Ile Arg Ser Val Ile Arg Gln  
 115 120 125  
 Ile Thr Ala Thr Val Thr Phe Leu Pro Leu Leu Glu Val Ser Cys Ser  
 130 135 140  
 Phe Asp Leu Leu Ile Tyr Thr Asp Lys Asp Leu Val Val Pro Glu Lys  
 145 150 155 160  
 Trp Glu Glu Ser Gly Pro Gln Phe Ile Thr Asn Ser Glu Glu Val Arg  
 165 170 175  
 Leu Arg Ser Phe Thr Thr Thr Ile His Lys Val Asn Ser Met Val Ala  
 180 185 190  
 Tyr Lys Ile Pro Val His Asp  
 195

<210> 5  
 <211> 1458  
 <212> DNA  
 <213> Mus musculus

<400> 5  
 atggcattct acagtcctgc tgtgatgaac tacagtgttc ccagcagcac cggtaacctg 60  
 gaagggtgggc ctgttcgcca gactgcaagc ccaaagtgtgc tatggccaac ttctggacac 120  
 ctctctcctt tagccacca ctgccaatca tcgtttctct atgcagaacc tcaaaagagt 180  
 ccttggtgtg aagcaagatc actagaacac accttgccctg taaacagaga gacctgaag 240  
 aggaagcttg gcgggagcgg ttgtgccagc cctgttacta gtccaagcac caagagggat 300  
 gctcaattct gtgccgtctg cagtgattat gcatctgggt atcattacgg tgtctgggtcc 360  
 tgtgaaggat gtaaggcctt ttttaaaaga agcattcaag gacataatga ctatatctgt 420  
 ccagccacga atcagtgtac gatagacaag aaccggcgta aaaactgccg ggctgcccga 480  
 cttcgcaagt gttacgaagt aggaatgggt aagtgtggat ccaggagaga aagggtgtggg 540  
 taccgaatag tacgaagaca gagaagtgcc agcgagcagg tgcattgcct gaacaaagcc 600  
 aagagaacca gtgggcacac accccgggtg aaggagctac tgctgaactc tctgagtcctc 660  
 gagcagctgg tgctcaccct gctggaagct gagccacca atgtgctagt gagtcgtccc 720  
 agcatgccct tcaccgaggc ctccatgatg atgtccctta cgaagctggc tgacaaggaa 780

ctggtgcaca tgattggctg ggccaagaaa atccctggct ttgtggagct cagcctgttg 840  
 gaccaagtcc gcctcttgga aagctgctgg atggagggtgc tgatgggtggg gctgatgtgg 900  
 cgctccatcg accacccccg caagctcatc tttgctccag acctcggttct ggacagggat 960  
 gaggggaagt gcgtggaagg gattctggaa atctttgaca tgctcctggc gacgacggca 1020  
 cggttccgtg agttaaact gcagcacaaa gaatatctgt gtgtgaaggc catgattctc 1080  
 ctcaactcca gtatgtacca cttggctacc gcaagccagg aagcagagag tagccggaag 1140  
 ctgacacacc tattgaacgc agtgacagat gccctgggtct ggggtgatttc gaagagtaga 1200  
 atctcttccc agcagcagtc agtccgtctg gccaacctcc tgatgcttct ttctcatgtc 1260  
 aggcacatca gtaacaaggg catggaacat ctgctcagca tgaagtgcaa aaatgtggtc 1320  
 ccggtgtacg acctgctgct ggagatgctg aatgctcaca cgcttcgagg gtacaagtcc 1380  
 tcaatctcgg ggtctgggtg ctgctcgaca gaggacagta agagcaaaga gggctcccag 1440  
 aacctccagt ctcagtga 1458

<210> 6  
 <211> 485  
 <212> PRT  
 <213> Mus musculus

<400> 6  
 Met Ala Phe Tyr Ser Pro Ala Val Met Asn Tyr Ser Val Pro Ser Ser  
 1 5 10 15  
 Thr Gly Asn Leu Glu Gly Gly Pro Val Arg Gln Thr Ala Ser Pro Asn  
 20 25 30  
 Val Leu Trp Pro Thr Ser Gly His Leu Ser Pro Leu Ala Thr His Cys  
 35 40 45  
 Gln Ser Ser Leu Leu Tyr Ala Glu Pro Gln Lys Ser Pro Trp Cys Glu  
 50 55 60  
 Ala Arg Ser Leu Glu His Thr Leu Pro Val Asn Arg Glu Thr Leu Lys  
 65 70 75 80  
 Arg Lys Leu Gly Gly Ser Gly Cys Ala Ser Pro Val Thr Ser Pro Ser  
 85 90 95  
 Thr Lys Arg Asp Ala His Phe Cys Ala Val Cys Ser Asp Tyr Ala Ser  
 100 105 110  
 Gly Tyr His Tyr Gly Val Trp Ser Cys Glu Gly Cys Lys Ala Phe Phe  
 115 120 125  
 Lys Arg Ser Ile Gln Gly His Asn Asp Tyr Ile Cys Pro Ala Thr Asn  
 130 135 140  
 Gln Cys Thr Ile Asp Lys Asn Arg Arg Lys Asn Cys Gln Ala Cys Arg  
 145 150 155 160  
 Leu Arg Lys Cys Tyr Glu Val Gly Met Val Lys Cys Gly Ser Arg Arg  
 165 170 175  
 Glu Arg Cys Gly Tyr Arg Ile Val Arg Arg Gln Arg Ser Ala Ser Glu  
 180 185 190  
 Gln Val His Cys Leu Asn Lys Ala Lys Arg Thr Ser Gly His Thr Pro  
 195 200 205  
 Arg Val Lys Glu Leu Leu Leu Asn Ser Leu Ser Pro Glu Gln Leu Val  
 210 215 220  
 Leu Thr Leu Leu Glu Ala Glu Pro Pro Asn Val Leu Val Ser Arg Pro  
 225 230 235 240  
 Ser Met Pro Phe Thr Glu Ala Ser Met Met Met Ser Leu Thr Lys Leu  
 245 250 255  
 Ala Asp Lys Glu Leu Val His Met Ile Gly Trp Ala Lys Lys Ile Pro  
 260 265 270  
 Gly Phe Val Glu Leu Ser Leu Leu Asp Gln Val Arg Leu Leu Glu Ser  
 275 280 285  
 Cys Trp Met Glu Val Leu Met Val Gly Leu Met Trp Arg Ser Ile Asp  
 290 295 300  
 His Pro Gly Lys Leu Ile Phe Ala Pro Asp Leu Val Leu Asp Arg Asp

305                      310                      315                      320  
 Glu Gly Lys Cys Val Glu Gly Ile Leu Glu Ile Phe Asp Met Leu Leu  
                                  325                      330                      335  
 Ala Thr Thr Ala Arg Phe Arg Glu Leu Lys Leu Gln His Lys Glu Tyr  
                                  340                      345                      350  
 Leu Cys Val Lys Ala Met Ile Leu Leu Asn Ser Ser Met Tyr His Leu  
                                  355                      360                      365  
 Ala Thr Ala Ser Gln Glu Ala Glu Ser Ser Arg Lys Leu Thr His Leu  
                                  370                      375                      380  
 Leu Asn Ala Val Thr Asp Ala Leu Val Trp Val Ile Ser Lys Ser Arg  
 385                                   390                                   395                                   400  
 Ile Ser Ser Gln Gln Gln Ser Val Arg Leu Ala Asn Leu Leu Met Leu  
                                  405                                   410                                   415  
 Leu Ser His Val Arg His Ile Ser Asn Lys Gly Met Glu His Leu Leu  
                                  420                                   425                                   430  
 Ser Met Lys Cys Lys Asn Val Val Pro Val Tyr Asp Leu Leu Glu  
                                  435                                   440                                   445  
 Met Leu Asn Ala His Thr Leu Arg Gly Tyr Lys Ser Ser Ile Ser Gly  
                                  450                                   455                                   460  
 Ser Gly Cys Cys Ser Thr Glu Asp Ser Lys Ser Lys Glu Gly Ser Gln  
 465                                   470                                   475                                   480  
 Asn Leu Gln Ser Gln  
                                  485

<210> 7  
 <211> 42  
 <212> PRT  
 <213> Mus musculus

<400> 7  
 Gly Ser Arg Arg Glu Arg Cys Gly Tyr Arg Ile Val Arg Arg Gln Arg  
 1                                   5                                   10                                   15  
 Ser Ala Ser Glu Gln Val His Cys Leu Asn Lys Ala Lys Arg Thr Ser  
                                  20                                   25                                   30  
 Gly His Thr Pro Arg Val Lys Glu Leu Leu  
                                  35                                   40

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